

Office Action Summary	Applicati n No.	Applicant(s)	
	10/015,199	SIRACKI, MICHAEL ALLEN	
	Examiner	Art Unit	
	Meredith C Petravick	3671	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Peri d f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 44-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 44-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 44 and 48 are objected to because of the following informalities:
 - In claim 44, the second label "c" should be --d--.
 - In claim 44, numbers 7, 8 and 9 of b --i, ii, iii-- to avoid confusion with claim numbers.
 - In claim 48, "g", "h" and "i" should be --a, b, c-- for consistency.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 44-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schumacher 4,657,093 in view of GB 2,279,095, both cited by applicant.

Schumacher discloses a earth boring bit (Fig. 1) including:

- a bit body (Fig. 1)
- three rolling cone cutters (Fig. 2)

Schumacher discloses that it is known in the art that the rolling cutters can be offset from the bit axis in a range from 1/32 to 1/16 inches per inch of the bit diameter (Column 2, lines 23-27).

Also, Schumacher teaches that this causes increased amount of breakage of tungsten carbide

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insert (Column 2, lines 44-51). However, Schumacher fails to disclose providing super-abrasive cutter elements on the bit.

Like Schumacher, GB 2,279,095 discloses a rolling cutter bit with inserts. GB 2,279,095 discloses that it is known in the art to use ultra hard material like cubic boron nitride or diamond metal carbide composites on inserts. These ultra hard inserts can be used with tungsten carbide inserts on "the heel row and gage row as well as successive concentric rows terminating at the apex of the truncated cone"(Page 1, lines 19-27). GB 2,279,095 teaches that this increases the time that the full gage is cut by providing more wear resistant cutting insert.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the bit of Schumacher with the ultra hard material inserts of GB 2,279,095, in order to increase the life of the bit by increasing the wear resistance.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 5967245 discloses that tungsten carbide insert bits have an IADC classification with the series designation between 4 and 8 (Column 13, lines 15-36)

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meredith Petravick whose telephone number is 703-305-0047. The examiner can normally be reached on Monday-Thursday from 7:00 a.m. – 4:30 p.m.

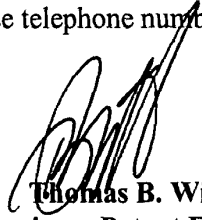
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached at 703-308-3870.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is 703-305-1113. The fax number for this Group is 703-305-3597.



Thomas B. Will
Supervisory Patent Examiner
Group Art Unit 3671

MCP
July 10, 2000